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PROGRAMMATIC DEIS SEISMIC SURVEYS  
IN THE BEAUFORT AND CHUKCHI SEAS  
PUBLIC HEARING/MEETING

Point Lay, Alaska  
Taken April 24, 2007  
Commencing at 7:30 p.m.

Volume I - Pages 1 - 71, inclusive

Taken at  
Kali School  
Point Lay, Alaska

Reported by:  
Mary A. Vavrik, RMR

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A-P-P-E-A-R-A-N-C-E-S

Albert Barros  
Community Liaison  
Minerals Management Service  
Bruce M. Herman  
Geophysicist  
Minerals Management Service  
Ken Hollingshead  
Fisheries Biologist  
National Marine Fisheries Service

Taken by:

Mary A. Vavrik, RMR

BE IT KNOWN that the aforementioned proceedings were taken at the time and place duly noted on the title page, before Mary A. Vavrik, Registered Merit Reporter and Notary Public within and for the State of Alaska.

1 P-R-O-C-E-E-D-I-N-G-S

2 MR. KEN HOLLINGSHEAD: Good evening. We  
3 can start.

4 MR. ALBERT BARROS: We are ready to get  
5 started now folks. Ken.

6 MR. KEN HOLLINGSHEAD: Thank you. Good  
7 evening. I'm Ken Hollingshead. I'm with the National  
8 Marine Fisheries Service, part of the National Oceanic  
9 Administration. Accompanying me tonight is Albert Barros,  
10 our community liaison official, and Bruce Herman, who is a  
11 geophysicist with the Minerals Management Service. He is  
12 our technical subject matter expert and will answer  
13 specific questions tonight on that subject. And we have  
14 Mary Vavrik, who is our court reporter.

15 Before we get started on the subject, I would like to  
16 ask Willard to do a blessing tonight.

17 (Blessing offered by Willard Neakok.)

18 MR. KEN HOLLINGSHEAD: The reason we are  
19 here tonight is to take testimony for -- on an  
20 environmental impact statement that was prepared by the  
21 National Marine Fisheries Service and the Minerals  
22 Management Service on seismic surveys in the Chukchi and  
23 Beaufort Seas. This EIS is -- was released on March 22nd  
24 and has a comment period that will end on May 14th.

25 What we have, we are accepting comments tonight in

1 verbal form, or if you do not wish to testify but would  
2 like to submit comments, we have forms available for you  
3 to submit comments, again, until May 14th.

4 Copies, additional copies are available at the MMS  
5 website. That would be [www.mms.gov/alaska](http://www.mms.gov/alaska). And then you  
6 would find the publications located in that location.

7 What happened -- to give you a brief summary, what  
8 has happened in the past was that in 2006 for the first  
9 time we saw that there was an interest in having seismic  
10 in the Chukchi Sea. We had had activity in the Beaufort  
11 Sea for a number of years, and there was a quiet period  
12 for several years. And then --

13 Make one comment here before I go on. If -- we are  
14 recording this as a court reporter, so if -- if we have  
15 too much excess noise, we are not going to be able to pick  
16 up the recording, so I ask you for your cooperation.

17 Thank you.

18 With that business stuff aside, back onto the more  
19 germane. So what we saw in 2006 was that there was an  
20 increased interest in conducting seismic activity in the  
21 Chukchi and Beaufort Seas. The Minerals Management  
22 Service prepared an environmental assessment called a  
23 programmatic environmental assessment to look at the  
24 activity in 2006. It turned out that the activity that we  
25 analyzed of four seismic surveys in the Beaufort and four

1 seismic surveys in the Chukchi Sea did not come to  
2 fruition. We still, though, felt that there could be  
3 additional interest in future years, so we decided that we  
4 needed to conduct an environmental impact statement.

5 To let you know the difference, under the National  
6 Environmental Policy Act if you are not going to have a  
7 significant environmental effect, your activity is not  
8 going to have significant environmental effect, you can do  
9 the shorter version, which is an environmental assessment;  
10 but if you feel that there is going to be a significant  
11 impact on the environment, then do you an environmental  
12 impact statement. And that was what we did over the  
13 winter of 2006 into 2007.

14 I was asked to talk slower. I will do that. We have  
15 most of the evening.

16 So what we are -- what we are doing is we released  
17 this, I said, on March 22nd, and we have a comment period  
18 until May 14th. The environmental impact statement, which  
19 is required by law, the National Environmental Policy Act,  
20 was to investigate or -- and analyze the impacts from  
21 Minerals Management Service issuing permits for seismic  
22 activities in the Beaufort and Chukchi Seas. It would  
23 also assist National Marine Fisheries Service in issuing  
24 its authorizations under the Marine Mammal Protection Act  
25 for the harassment incidental to that activity for the

1 harassment of marine mammals, particularly beluga whales  
2 and bowhead whales.

3 Under the Marine Mammal Protection Act, if we make a  
4 determination that that impact would be negligible and  
5 would not have an unmitigable adverse impact on  
6 subsistence uses of bowhead whales and other species like  
7 beluga whales, then we could issue the authorization. So  
8 that was the reason for doing this environmental impact  
9 statement.

10 What we looked at in this was the different arrays of  
11 alternatives, most of which would be technical. And  
12 unless questions come up on the subject, we won't get into  
13 them here. But, essentially, zones of influence on the  
14 marine mammals to avoid having a significant impact on  
15 them. And they range from potential for injury to a  
16 potential for significant behavioral disturbance. And we  
17 have analyzed all those in this document, and it's what we  
18 are looking for, comment on those -- on those alternatives  
19 and our assessment of the impacts.

20 We also would like to have comments on traditional  
21 knowledge. Where traditional knowledge may not have been  
22 included in here, we feel that that is important and we  
23 would like to get that information included in the final  
24 environmental impact statement. I may get into more  
25 detail later on if there are questions, but the purpose is

1 to receive comment from the audience tonight.

2 What we can do is to respond to technical questions,  
3 but the purpose of a hearing like this is not to get into  
4 a debate on the merits of certain issues. So there is a  
5 fine dividing line between the two where we try to respond  
6 to the people and their genuine concerns, but without  
7 getting into an evening-long discussion on one or two  
8 subjects.

9 When somebody is asking a question, if we could get  
10 the name for the record.

11 MR. BILL TRACEY, SR.: Bill Tracey, for  
12 the record. Bill Tracey, Senior. There is two of us  
13 here. I guess my question is: Was it by design that you  
14 did not include local knowledge in your environmental  
15 impact statement and that you were going to reach out to  
16 the communities and gain that and include it in the EIS,  
17 or is it like an addition to it, or how does that work?

18 MR. KEN HOLLINGSHEAD: When an  
19 environmental impact statement is written, we have -- or  
20 Minerals Management Service has subject matter experts.  
21 And so their expertise, one of which is traditional  
22 knowledge, should be in that document. If that  
23 information was not included, that should be pointed out  
24 to Minerals Management Service and National Marine  
25 Fisheries Service so that we get that information in. It

1 was not intentional; it was that somehow that information  
2 did not get into the document.

3 We are opening the floor to comments. If there is  
4 more of a need for people to understand what is going on,  
5 I will be happy to do that for people.

6 MR. BILL TRACEY, SR.: I was going to  
7 suggest that you might just do a quick synopsis of what is  
8 planned for the seismic work this year.

9 MR. KEN HOLLINGSHEAD: Okay. Thank you,  
10 Bill. As I started out earlier to discuss, in 2006 we saw  
11 a great interest in coming up into the Chukchi and into  
12 the Beaufort Sea to conduct seismic operations. We had  
13 three operations, three seismic operations in 2006. Shell  
14 Oil was up here, ConocoPhillips, and GX Technology. I'll  
15 shorten that up to GXT if we continue a discussion about  
16 them.

17 During the late fall of 2006 we saw that there was  
18 interest by additional companies. We do not have the  
19 names, but they were not local companies that would be  
20 familiar to the people of Alaska. They were from Houston,  
21 Texas; mostly from Houston, Texas. So we thought that  
22 there would be a great deal of interest.

23 Let me explain a little bit about seismic. Seismic  
24 surveys are conducted by large vessels towing hydrophones  
25 behind the vessel. They also have a large noise source

1 that, in the Beaufort and Chukchi Seas more so than in  
2 other areas, seem to propagate sound so you can hear it a  
3 long ways away. That is of concern to the National Marine  
4 Fisheries Service and to others, including North Slope  
5 Borough and others who have interest in the welfare of the  
6 bowhead whale and the beluga whale.

7 And so there are -- in getting an authorization from  
8 the National Marine Fisheries Service, there are  
9 mitigation measures that we impose to, one, protect the  
10 animal itself, especially the cow/calf pairs as they are  
11 migrating westward in the fall. Also any concentrated  
12 feeding areas. The problem that we had that we needed the  
13 environmental assessment for in 2006 was because there was  
14 a great unknown in the Chukchi Sea.

15 Seismic surveys had not been conducted since the  
16 1980s or so and early '90s. And at that time there were  
17 no baseline studies that were conducted, so there was a  
18 great deal of -- a lack of information that we are now  
19 trying to have the industry collect that information and  
20 provide it to the interested parties up on the North Slope  
21 and in the federal government.

22 But what happened in 2006, we thought, was a  
23 precursor to what we would see in 2007 where we thought  
24 that there would be a great deal of interest by these oil  
25 companies, especially, as we all know, the price of oil,

1 the barrel price of oil was increasing; but as it has  
2 turned out, a lot of that interest has disappeared, at  
3 least for this year.

4 In 2007 now we are expecting that GXT, or GX  
5 Technology, will be conducting seismic surveys only in the  
6 Canadian Beaufort Sea. ConocoPhillips has withdrawn their  
7 permit application to Minerals Management Service and will  
8 be sharing ship space, ship time with Shell.

9 Shell Oil plans to enter into the Chukchi Sea in --  
10 when the ice allows it sometime after July 15th. They  
11 cannot come in before that time to ensure protection of  
12 the bowhead and beluga harvest along the Chukchi coast.

13 So they will come into the Chukchi Sea sometime after  
14 July 15th, or they requested to come in and get -- through  
15 their permits. And they will conduct seismic surveys on a  
16 single vessel in the Chukchi Sea until the Beaufort Sea  
17 opens up, at which time they would like to conduct two  
18 types of activities in the Beaufort Sea. They would like  
19 to conduct a deep seismic survey similar to what they are  
20 doing in the -- propose to do in the Chukchi Sea.

21 They also would like to do shallow hazards work,  
22 which essentially consists of using a much -- a small air  
23 gun, possibly even a single air gun in close to -- on  
24 their lease sites to see what kind of resources are there,  
25 including archeological and cultural resources that are in

1 the shallow sediments of that area.

2 Shell also plans to bring in two drilling vessels  
3 into the Beaufort Sea. The ice breakers to have those  
4 vessels will come into the Chukchi Sea sometime in, I  
5 guess, in June or so as they are proposing right now; in  
6 June, and they will bring the drill ships in to the  
7 Beaufort Sea when ice conditions allow, and they will  
8 conduct some drilling operations on their lease sites in  
9 the U.S. Beaufort Sea, I believe, if I remember correctly,  
10 pretty close to the Canadian border.

11 That's a summary of what we expect to happen from  
12 these operations. There will be other operations  
13 associated with -- not by these companies, but other  
14 companies with ANPR, the area there for on-land drilling.  
15 The on-land drilling would mean bringing barges back and  
16 forth with the equipment, et cetera. So that's, in  
17 summary, what we are expecting at this time.

18 One of the things I might mention that we are  
19 concerned about is to ensure that there is not an  
20 unmitigable adverse impact on the subsistence uses of the  
21 bowhead whale or the beluga whale, and we are working --  
22 we will have -- currently we have a Federal Register  
23 notice out that's open for public comment until May  
24 10th -- I think that date is correct -- until May 10th  
25 that -- for the Shell drilling projects in the Beaufort

1 Sea.

2 I am still working on a Federal Register notice  
3 asking for public comment on Shell's Chukchi Sea and  
4 Beaufort Sea operations, proposed operations. That will  
5 go out sometime within maybe three weeks from now and will  
6 have a 30-day comment period. One of the important  
7 components of that is to ensure that the seismic  
8 operations, as I've mentioned, I think, a few times this  
9 evening, that it does not have an unmitigable adverse  
10 impact on subsistence uses of the bowhead or the beluga  
11 whale or seals. But the main focus, because of seismic  
12 noise, is on the fall migration of the bowhead whale. So  
13 we are working on that right now.

14 There are a number of mitigation measures that have  
15 worked in the past successfully -- I think successfully;  
16 some may not agree -- and we would like to use that as a  
17 starting point to look at what measures are needed in 2007  
18 to ensure that there is a harvest of bowhead whales.

19 MR. ROBERT SUYDAM: My name is Robert  
20 Suydam. Ken, maybe you could talk little bit about what  
21 some of those mitigation measures are to protect bowhead  
22 and belugas and the hunting of those animals.

23 MR. KEN HOLLINGSHEAD: For the Chukchi  
24 Sea, the measures identified in the past is the ones I  
25 mentioned previously, was to ensure that the spring leads

1 are protected from seismic. Seismic surveys cannot  
2 operate in broken ice, so that's one mitigation that they  
3 impose on themselves, but when the ice leads are open,  
4 that we ensure that the -- there is no hindrance or that  
5 the whales cannot -- would not be significantly delayed in  
6 their migration or would not be forced out of the  
7 traditional areas where they would be hunted by the  
8 Natives either for belugas or the spring bowhead hunt.

9 The information that we have to date is that those  
10 hunts would end by I think it's July 15th. We are looking  
11 at some information that we received in the Village of  
12 Point Hope and others to see whether that information is  
13 correct, and we will work to ensure that the major portion  
14 of these hunts that could be affected would be over before  
15 they are allowed to start conducting seismic surveys in  
16 the Chukchi Sea.

17 In the Beaufort Sea, and it also to some degree will  
18 affect the Chukchi Sea coast, in the fall is that what  
19 worked successfully last year under the nongovernment --  
20 we didn't have any role to play in it -- what's called a  
21 conflict avoidance agreement, but there were blackout  
22 periods that were imposed to protect the hunt around each  
23 of the villages. So as the whales migrate from Canada  
24 over past Barrow, that these mitigation measures are  
25 imposed, these blackout dates, so the industry cannot

1       conduct seismic.

2           A number of years ago we just simply -- they simply  
3       had a blackout period that moved on its own, but the  
4       situation has changed now that the industry is not  
5       interested in general areas to explore. They have  
6       specific lease areas or proposed lease areas that they  
7       want to go to. So that doesn't work. So now it's just a  
8       plain blackout to protect each of the villages'  
9       subsistence use area. We, of course, will have to look at  
10      that again to make sure that the -- that that mitigation  
11      measure is adequate. The seismic survey boats make a lot  
12      of noise and it could affect others down the coast.

13           One of the things that the scientists are looking at  
14      is what happens after a seismic boat is allowed to  
15      operate, what is going to happen west of that boat; is it  
16      going to affect the next village down the coast in their  
17      ability to get their harvest.

18           Another issue that -- another mitigation measure that  
19      we imposed last year under the National Environmental  
20      Policy Act -- I really can't get into the details right  
21      now because it would take me a half an hour just to  
22      explain it, but essentially to avoid a significant impact  
23      on bowhead cow/calf pairs which, again, affects its future  
24      survival, we imposed a mitigation measure that required  
25      them to have a safety zone that went out to 120 decibels.

1 That may be a strange term to a lot of people, but 120  
2 decibels is roughly where scientists have found that the  
3 whale starts to move away from noise. And as you could  
4 see, if it's only a little noise moving, they could go  
5 back pretty quickly on that; but if you have a whole  
6 series of seismic vessels, those animals could be using a  
7 lot of energy as they move, try to move north or south  
8 away from the vessels.

9 This really doesn't affect subsistence for that year  
10 because there is no subsistence that far offshore, but it  
11 could affect the future of the bowhead whale and thereby  
12 affect subsistence harvests in future years. We are very  
13 much concerned about the calf survival and female  
14 reproduction.

15 The other mitigation measure that we imposed -- and  
16 all of this was in the fall after September 25th when the  
17 migration comes back into the Chukchi Sea -- was to --  
18 because we did not know where the feeding areas were in  
19 the Chukchi Sea, was to have the seismic survey operations  
20 out there looking for concentrations of feeding. We have  
21 some information in the Beaufort Sea about feeding, but we  
22 don't have that information in the Chukchi Sea, and we did  
23 not want to have a situation occur as we thought we could  
24 have, for example, years before in Southern California  
25 where the California gray whale was prevented from

1 migrating simply because Southern California was having a  
2 seismic survey. And we put out aerial aircraft at that  
3 time. So we tried to have that imposed in 2006.

4 Did that capture it, Robert?

5 MR. ROBERT SUYDAM: (Nods head.) Maybe a  
6 follow-up question, if I can again is, Ken, you mentioned  
7 earlier that the hunt for bowheads and belugas and seals  
8 are protected, but you didn't say anything about walrus or  
9 polar bears. Could you comment on how this EIS deals with  
10 protecting the hunt for walrus, as well?

11 MR. KEN HOLLINGSHEAD: This environmental  
12 impact statement does not take into account the impacts on  
13 walrus and polar bears. When Congress, in their infinite  
14 wisdom, passed the Marine Mammal Protection Act, they  
15 divided the responsibility up for marine mammals between  
16 the National Marine Fisheries Service, NOAA, and the U.S.  
17 Fish & Wildlife Service. So they gave the Fish & Wildlife  
18 Surface species such as manatees, dugongs, polar bears,  
19 walrus, and sea otters, and gave the National Marine  
20 Fisheries Service most of the rest: all the pinnipeds  
21 except walrus and the cetaceans.

22 We requested the U.S. Fish & Wildlife service to be a  
23 cooperating agency in the preparation of this EIS so that  
24 we would include them, but their administration decided  
25 that they would prefer to have their own environmental

1 assessment on this. So it's unfortunate that, you know, a  
2 lot of the comments that we have heard in visiting the  
3 Village of Point Hope and others was that, you know, their  
4 concern was on walrus, but that is, unfortunately, not  
5 within our area. It's not our responsibility at this time  
6 until Congress does something. But that's with the Fish &  
7 Wildlife Service. And what we are doing is we are  
8 transmitting those concerns of the communities back to the  
9 Fish & Wildlife Service for their consideration.

10 MR. WILLARD NEAKOK: Willard Neakok, for the  
11 record. So they are going to be doing seismic along the  
12 Chukchi Sea until Beaufort Sea opens up during the summer.  
13 And I know that a lot of whales, you know, go through  
14 there, migrate through there and go towards Kaktovik, I  
15 believe; also the beluga. My concern is, you know, they  
16 are going to be in that red boundary in that Chukchi Sea.  
17 That Point Hope area just like a -- just like a tunnel  
18 type area to where sound will travel. I know sound  
19 travels quite a distance under the water.

20 And it's just like if you guys were down in on the  
21 Seward Peninsula where Nome and Little Diomedes and Russia  
22 are right there, if you guys were doing seismic in that  
23 area, probably no migration of anything would be coming up  
24 through there to our area, you know. And I believe that  
25 if we do the seismic in the Chukchi Sea, you know, that

1 will deter the migration route more west rather than them  
2 following the -- like what they do, like the bowhead, they  
3 go from point to point, you know, migrating. And you  
4 know, they follow the open leads.

5 And if they are doing seismic out there, you know,  
6 they -- I believe that, you know, the migration route will  
7 take them way out towards the west. And you know, they  
8 will keep Wainwright and Barrow from getting whales. I  
9 know you guys start on July 15th or they are supposed to  
10 start, but sometimes, you know, there is still a lot of  
11 ocean ice out there towards Barrow and Wainwright around  
12 that area around that time, too; Nuiqsut.

13 You know, I just don't like to see -- you know, we  
14 are in the process of trying to get a quota for our  
15 village, which has been dormant for the past 50 odd years.  
16 And I sure hate to lose the chance to have seismic crews  
17 coming back to, like it says, 2012, and that -- you know,  
18 that would really deter our chances if the bowhead decide  
19 to take a different route rather than the one they have  
20 been accustomed to for thousands of years. You know,  
21 it's -- I just don't like to have any seismic done out  
22 there that will jeopardize our chance for quota or even  
23 hunting whale altogether.

24 MR. KEN HOLLINGSHEAD: Okay. Thank you.  
25 What we would like to receive is information on this. As

1 I mentioned, in our programmatic environmental assessment  
2 that we did, MMS did in 2006, we had a prohibition on any  
3 seismic being conducted before July 15th. I was -- I  
4 thought that might have captured the migration for both  
5 the beluga and the bowhead. If there is -- if that is not  
6 correct, and especially if we can pick up some traditional  
7 knowledge from the elders of the village as to what they  
8 did in earlier time, that certainly would go -- would  
9 assist us in being able to ensure that there is not an  
10 unmitigable adverse impact on the subsistence uses in the  
11 Chukchi.

12 As I mentioned previously, we don't have a lot of  
13 information about the Chukchi Sea, impacts on seismic  
14 because, unlike the Beaufort Sea, nobody was collecting  
15 the data. In fact, National Marine Fisheries Service was  
16 issuing authorizations under the Marine Mammal Protection  
17 Act for seismic activity in the Beaufort Sea while at that  
18 time, from what I have been told, was that there was  
19 operations in the Chukchi Sea that nobody -- nobody  
20 mentioned. The Village of Point Hope mentioned that they  
21 were cut out. They did not know about this until after  
22 the fact. So we don't have -- we were unable to collect  
23 that baseline information.

24 So we are trying to fill in the gaps, information  
25 gaps at this time in order to write this environmental

1 impact statement and to include both the scientific  
2 knowledge that we have and the traditional knowledge that  
3 may be available from some of the village elders who may  
4 have participated in it. So we welcome that information.

5 MR. WILLARD NEAKOK: You know, I've visited  
6 Kivalina, and they say the Red Dog port, you know, is  
7 going to open pretty soon and they have ships going in and  
8 out daily. And all the engine noise from the ships, you  
9 know, they reverberate out. And they haven't -- even  
10 before the port was opened, you know, they were getting  
11 whales, they were getting belugas, they were getting  
12 seals, you know, close to the village. And after the Red  
13 Dog port was opened, you know, they have to travel out in  
14 the ocean quite a distance just to, you know, do their  
15 whaling or beluga hunting or seal hunting.

16 I just hate to see our area affected because of  
17 summertime noise like what the village of Kivalina is  
18 going through right now. I just don't want to be another  
19 Kivalina, affected village by ships.

20 MR. KEN HOLLINGSHEAD: Thank you, Willard.

21 MR. JACOB P. STALKER, JR.: Jacob Stalker,  
22 for the record. How many miles from the shoreline are the  
23 testings going to be happening out of the village?

24 MR. KEN HOLLINGSHEAD: It is my  
25 understanding that they will not be any closer than about

1 60 miles from shore.

2 MR. JACOB P. STALKER, JR.: That is the  
3 exact route the animals travel, 60 miles out and toward  
4 the land. We have got California grays that feed  
5 offshore. We have got bowheads that are out in the deeper  
6 parts. And all the animals, their migration routes are  
7 right smack in the middle of that 60-mile zone. So is  
8 there any way you could utilize the technologies to reduce  
9 noise? Even explosions carry out so badly, it's already  
10 affected not just the wild animals, but their food,  
11 equilibrium, whatever they call that. You know what I  
12 mean. It's kind of -- it's not a kaboom type of situation  
13 out there. It's kind of quiet.

14 MR. KEN HOLLINGSHEAD: I've heard that  
15 from the hunters, how quiet they have to be for walrus and  
16 for these other animals.

17 MR. JACOB P. STALKER, JR.: A lot of their  
18 way of getting food is through sonar or whatever they call  
19 that, that type of thing. And all that extra noise that's  
20 happening disrupts their senses, and it's probably done a  
21 lot of damage to them. They might not be after food from  
22 where they move away to, but the noise -- they move away  
23 from any kind of noise. You drop a load about 30 feet  
24 below the surface of the ocean, that carries the sound  
25 every direction, not just one way; up, down, and

1 everywhere.

2 I'm not trying to tell you not to do any kind of  
3 exploration, but it would be nice to find out if there is  
4 new technology to use in order to -- rather than going at  
5 it the way it's been going for the last 40 years.

6 MR. KEN HOLLINGSHEAD: Okay. To respond  
7 to a couple of your points, one is I hope that the  
8 mitigation measures that we impose will protect the  
9 migration period. The oil and gas, though, they get a  
10 permit provided -- from National Marine Fisheries Service,  
11 provided that the impacts are negligible. So we are  
12 looking at that, but they do -- they are authorized to  
13 harass the animals, provided that it's not affecting --  
14 significantly affecting the subsistence harvest. So we  
15 look at both of those. And if we have -- if there is new  
16 information that we don't have that I mentioned earlier,  
17 we need to know if there is other information on the  
18 migratory periods of these species, the beluga and the  
19 bowheads in particular.

20 But we are also trying to get information on seal --  
21 on seal hunting, where and when, anything else that might  
22 be -- might be impacted. If there are fisheries, you  
23 know, subsistence fisheries that are going on along the  
24 coast, we want to get that information into this  
25 environmental impact statement. So we are looking for

1 this kind -- this kind of information for the document.

2 In regard to your one point there about new  
3 technologies, when seismic first started they were using  
4 explosives. They would drop dynamite over the side.  
5 Second generation is seismic. The industry has told us  
6 that they are now looking at new technology, including  
7 things like vibrators. We have that on the ice in the  
8 Beaufort Sea in the wintertime where they vibrate the ice  
9 and the sound goes into the water column and into the  
10 bottom to get the same signal that they are looking at.

11 So they are going to look at, as a research  
12 component, aside from what goes on up here, look at having  
13 vibrate -- some sort of new technology. It's called the  
14 Joint Industry Project -- or program. Excuse me. And  
15 they are looking at investing money into, let's call it,  
16 for lack of another term, a third generation acoustic  
17 instrumentation for avoiding these kinds of problems.

18 The problems that you see here, of course, are very  
19 important to you, but those same concerns are worldwide,  
20 in the North Sea, in the Gulf of Mexico, in Southern  
21 California. And they will also, then, in the future go  
22 into other areas if new areas are opened up, such as the  
23 East Coast of the United States. So I think the industry  
24 is trying. I'm not a supporter of the industry, but I can  
25 pass on what they tell me.

1                   MR. ROBERT SUYDAM: Ken, you just said  
2                   that one of the desires is to make sure that there are no  
3                   negligible impacts or no unmitigable adverse impacts to  
4                   subsistence hunting or to the animals themselves. Can you  
5                   tell us what's known about impacts from seismic activity  
6                   to marine mammals, especially in the Chukchi Sea and -- so  
7                   that we can better understand how NMFS and MMS is going to  
8                   measure what the impacts are and then determine that they  
9                   are negligible or that there are no unmitigable adverse  
10                  impacts to subsistence hunting?

11                  MR. KEN HOLLINGSHEAD: Well, we don't want  
12                  to get into a debate on this, as I was mentioning before.  
13                  Let me just briefly summarize. For a negligible impact we  
14                  can look at it being simply not a significant impact. We  
15                  look at a negligible impact as not having an impact on  
16                  reproduction and survival. So behavioral responses that  
17                  are not going to reduce the population itself would be a  
18                  negligible impact.

19                  So the fact that a whale moves a slight distance,  
20                  say, around a seismic vessel, it moves five miles or  
21                  whatever, would not -- would not kick it off of it being a  
22                  negligible impact. But if you could see that if you had a  
23                  number of seismic operations and that animal was being  
24                  affected so that it had a huge arc to swing around and  
25                  could not get back to its regular and custom places or was

1 forced in closer to the shore because of an offshore  
2 seismic and the young -- the calf stranded or something  
3 happened to it or increase its predation out of this area,  
4 but further south, the predation of -- were to increase by  
5 killer whales or something else, that could trigger more  
6 than a negligible impact.

7 But on a -- where were we getting to here?

8 MR. ROBERT SUYDAM: I -- maybe I didn't  
9 ask my question very well. I guess I'm asking: What do  
10 we know about seismic impacts to marine mammals in the  
11 Chukchi Sea and how is NMFS going to ensure that there are  
12 no negligible impacts to the marine mammals?

13 MR. KEN HOLLINGSHEAD: For the Chukchi  
14 Sea, what we are doing is until we get that -- get  
15 specific information on it, we are using the information  
16 that has been collected for a number of years in the  
17 Beaufort Sea. We don't have information on any other  
18 area, so that's the most comparable area. There are a few  
19 unknowns.

20 As we could see, the impacts would be presumed to be  
21 less if as the -- I guess the North Slope Borough's map  
22 shows a wide distribution of bowheads coming through the  
23 Chukchi Sea, some heading to the Russian coast, others  
24 heading down to the Bering Strait. That would be -- that  
25 would impact fewer animals and potentially have a less

1 impact than if they were all concentrated and coming  
2 through at one time. So that's what we are looking at and  
3 that's what we need the information for.

4 So for example, the industry's net array that they  
5 put up that records bowhead and beluga calls, if that kind  
6 of a research project can assist us in knowing how many  
7 are coming down to the coast or aerial surveys could be  
8 done by MMS or somebody else to start looking at the  
9 distribution of bowhead whales, that would give us a  
10 better understanding of the animals.

11 But for the time being, we are using the information  
12 in the Beaufort Sea which shows that marine mammals --  
13 excuse me -- bowhead whales are affected to a level  
14 somewhere to 120 decibels, which for a standard air gun  
15 array -- not the ones they are currently using in the  
16 Chukchi, but in the Beaufort Sea they were using a 1,150  
17 cubic-inch air gun array, and that essentially came out to  
18 approximately 20 kilometers.

19 So what we did in the environmental assessment and  
20 the EIS is we equated that to being approximately 120  
21 decibels, which is a fairly big area. If you remember,  
22 Robert, it's about 60 miles or so.

23 MR. ROBERT SUYDAM: Yeah.

24 MR. KEN HOLLINGSHEAD: So that's a very  
25 big area to survey, but that's the area that we feel that

1 we have to ensure that, under the NEPA document that we  
2 did last year, that those animals are not being  
3 significantly affected by vastly increasing their  
4 migration range which could mean that the food reserves  
5 that they have would be used up just in swimming around a  
6 seismic boat. But for the time being, until we get new  
7 information, we have to use the information in the  
8 Beaufort Sea because that's the best scientific  
9 information that we have available.

10 You people are going to have me losing my voice  
11 before the night is out. But as I said, this is your  
12 meeting. I have understood from a number of hearings that  
13 I've done that people don't understand. There is a lot of  
14 confusion and misunderstandings, and I'm hopefully here to  
15 help answer some of the questions and some of the  
16 concerns, but without getting into a significant debate on  
17 it.

18 MR. NATHAN HENRY: You said that this is the  
19 court system. Is that from, like, North Slope Borough or  
20 the State or out of Washington?

21 MR. KEN HOLLINGSHEAD: I think I missed  
22 the beginning of your statement.

23 MR. NATHAN HENRY: You said that's the  
24 court system right here. Is that from the North Slope  
25 Borough, the State or Washington or the --

1                   MR. KEN HOLLINGSHEAD: I'm sorry. The  
2 court reporter is from Anchorage, and she is hired by  
3 Minerals Management Service and National Marine Fisheries  
4 Service to -- this is what's called a public hearing for  
5 obtaining information from the public on this  
6 environmental impact statement. So what -- statements  
7 made by you or me go into that record, and that record is  
8 a public record. So when we make -- when Minerals  
9 Management Service and National Marine Fisheries Service  
10 make a decision on this environmental impact statement,  
11 what alternative they choose, what direction they go, that  
12 information is part of the public record. So it's the  
13 same as writing a comment. When you write a letter, it's  
14 the same. It goes into the record and it's reviewed and  
15 incorporated into the public documentation record for this  
16 document.

17                   MR. NATHAN HENRY: So it would be like a  
18 -- if something happened, then you would have a backup  
19 saying, no, we have a court order to say that we can be  
20 out there; is that what it's for or -- you know, like a  
21 court order to stay away from somewhere, or a court order  
22 to stay out there or you got a -- would that be --

23                   MR. KEN HOLLINGSHEAD: This is not -- I  
24 think what you are referring to is the judicial system.  
25 This is not -- we are part of the Executive Branch. We

1 are part of the Department of Commerce and the Department  
2 of the Interior. So we are going through an  
3 administrative process to collect information on this. At  
4 the end of the process, a decision has to be made by  
5 Albert's supervisors and my supervisors as to whether a  
6 permit is issued by Minerals Management Service and by  
7 National Marine Fisheries Service for conducting seismic  
8 surveys in the Chukchi and Beaufort Seas in 2007.

9 NEPA, the National Environmental Policy Act, is one  
10 of those methods of getting that information. Prior to  
11 NEPA in 1972 -- 1970, a lot of decisions were made in a  
12 vacuum. People made decisions without any public input.  
13 The National Environmental Policy Act is a very important  
14 tool for public input and public participation.

15 There are things going on back in Washington that  
16 will further improve that process so that everybody has a  
17 chance to provide input into this document, and that  
18 document, then, will then allow for a much more -- I can't  
19 think of the right word -- but better review of the  
20 activity and so we'll hopefully come to a fairer and  
21 balanced decision on that activity.

22 So this is not a court case. This is an  
23 administrative case, but the law requires us to have a  
24 formal hearing. And the only way to have a formal hearing  
25 is to get word for word on the record. Okay. Help?

1                   MR. WILLARD NEAKOK: Just for  
2 clarification, I heard you state that they would start  
3 traveling up towards Chukchi Sea in June, is that correct?  
4 Shell and --

5                   MR. KEN HOLLINGSHEAD: The Shell seismic  
6 project may get to Dutch Harbor by June, but they will not  
7 proceed up into the Chukchi Sea. When you have a seismic  
8 boat, a seismic boat tows very long arrays of hydrophones,  
9 underwater microphones, to pick up the sounds of the  
10 seismic impulse sound. They cannot tow those big  
11 hydrophones -- they are like big plastic sleeves -- in  
12 ice. The ice would cut them up and they would then be no  
13 good. So they have to have ice-free water to enable them  
14 to conduct seismic surveys.

15                  MR. WILLARD NEAKOK: I just needed a  
16 clarification of where they would be in June. I thought  
17 they would have hung around the Chukchi Sea until July  
18 15th and then start their project, but now that you  
19 mentioned that they will be in Dutch Harbor in June --

20                  MR. KEN HOLLINGSHEAD: The seismic --  
21 remember, there is a lot of activity going on, and Robert  
22 and I found out for the first time a couple weeks ago that  
23 the ice breakers were moving up, and so that's a  
24 different -- there are ice breakers for the Shell drilling  
25 project, and we have to look at that as to whether that

1 will have an impact on the coast on the subsistence  
2 harvest and what measures need to be done on that. But  
3 that's separate from the seismic, which is what the  
4 discussion is tonight. What I was responding to that was  
5 from Bill's comment -- is that right, Bill? Yeah, Bill's  
6 comments about can you fill us in on what's happening with  
7 Shell this year.

8 MR. ROBERT SUYDAM: Just a question on the  
9 process, I guess. Are you just taking questions now or  
10 are you formally opening it up for public comment, or is  
11 it kind of whatever happens, whatever? What --

12 MR. KEN HOLLINGSHEAD: My approach may not  
13 be what a number of other people would have, but what I  
14 don't like is to have people who don't really know enough  
15 to -- don't know the project enough to be able to ask  
16 questions. So I try to explain things so that people will  
17 think, oh, yes, this affects me and my livelihood; now I  
18 can think of something to ask.

19 The worst thing to me, sitting up here, is for the  
20 next couple of hours to stare at somebody, they stare  
21 back. I had that in the public hearing in Anchorage where  
22 the oil industry was sitting there and they were staring  
23 at me and they wouldn't ask any questions, and I would not  
24 ask -- I was trying to avoid anything direct with them.  
25 They came to see what they thought would be something

1 and -- but they didn't want to go on record. I asked one  
2 of them later on, said we didn't get approval to ask  
3 questions or to make comment.

4 So I want to have this as a more relaxed atmosphere  
5 so that we can share information, but without getting into  
6 a debate on the merits of an issue. So I'll have that --  
7 I have to draw that line there for that.

8 MR. GEOFF JAMES: My name is Geoff James.  
9 Just for my information, I know nothing about marine  
10 mammals, whales. Does a whale or any marine mammal, do  
11 they hear like human beings do, or is what they take in a  
12 sonar -- somebody was mentioning --

13 MR. JACOB P. STALKER, JR.: They do both.

14 MR. GEOFF JAMES: From my experience in  
15 the industry, safety side, a human being, 85 decibels is  
16 where any formal safety system would require that you  
17 hear -- wear hearing protection. So I'm just interested  
18 as to how do whales hear. Is it the same -- would it be  
19 the same as a human in their recognition of sound?

20 MR. KEN HOLLINGSHEAD: Robert, would you  
21 like to try that?

22 MR. ROBERT SUYDAM: You are holding the  
23 public hearing, Ken.

24 MR. KEN HOLLINGSHEAD: I'm holding the  
25 hearing. I know. Whales don't have external ears like we

1 have, but they are able to -- depending on the species and  
2 stuff, they are able to sense noise through various  
3 mechanisms. Dolphins, for example have a sensory section  
4 in their lower jaw. But a lot depends on the animal and  
5 the environment as to how they react, how they are  
6 accustomed to sounds. If you hear a sound every day, they  
7 react differently than if it's a novel sound. They react  
8 differently if it happens to sound like something that  
9 wants to eat them. So there is a lot of difference, and  
10 there is also a lot of tolerance for noise if they want to  
11 feed.

12 For example, when we had a sea lion down in Ballard's  
13 Lock down in Seattle, it would tolerate high, intense  
14 noises, but it would keep its head above the surface and  
15 only at the last minute when it saw the trout that it  
16 wanted, it would dive down and grab that trout and come up  
17 with it, put its head above the water. So it was  
18 tolerating a very loud noise in order to do that.

19 This past year in Canada, we found that bowhead  
20 whales were not being pushed off of their feeding at 160  
21 decibels, which is the standard response level that we  
22 found from research for, say, gray whales moving out of  
23 their migratory channel. They were tolerating that  
24 annoyance in order to continue feeding. They had this  
25 great desire to bulk up on their food before they started

1 a westward migration out of the Canadian Arctic and the  
2 U.S. Arctic waters, so they tolerated the sound.

3 But the difference that you are talking about,  
4 humans, the -- in air has a reference point of 20  
5 microPascals, whereas under water we have one microPascal.  
6 And there is a difference, I think, of 64 decibels when  
7 you take impedance, et cetera. So there is a difference.  
8 When we talk about 160 decibels, you are talking more like  
9 100 decibels or so in our -- our hearing.

10 MR. GEOFF JAMES: Follow-up question, if I  
11 could. When a sonar is under the water, is it like a  
12 white noise, a constant noise, or is it a pinging sound?  
13 Because I know, from my point of view, I can sleep right  
14 beside a generator that's going at how many decibels it is  
15 if it's constant, but are these noises that these sonars  
16 make, are they -- and is there any information as to what  
17 bothers the whales more, a white noise or a pinging or  
18 different rhythm?

19 MR. KEN HOLLINGSHEAD: We really -- we  
20 really don't have that information. We know for bowhead  
21 whales. But seismic noise is a very intense noise with a  
22 gap in between. So what happens is seismic or for sonar  
23 is they need to be able to have a period of quiet in order  
24 to catch, to reflect the returning sound wave, which gives  
25 them the information. So it's timed so that they send out

1 a very sharp rise time, which is out into the water, and  
2 then it comes back. At distance, those signals will start  
3 to meld together, so they become what we call more  
4 broadband noise, and they become much more muted. They  
5 don't have the high signature anymore.

6 So it doesn't matter -- my knowledge is it doesn't  
7 matter whether it's -- if it's close in, that sharp rise  
8 could cause an injury, an ear injury to the animal. So  
9 that's of concern. That's why we have a certain safety  
10 zone that has observers looking all the time for any  
11 marine mammals inside that potentially dangerous zone. We  
12 actually set up it very precautionary. We now know that  
13 it's probably overly cautionary from what information we  
14 have, but it's still established worldwide now. It's gone  
15 worldwide as to where they need to establish that safety  
16 zone.

17 But then outside that, there is a behavioral change  
18 recognized. For most animals it seems to go to about 160  
19 decibels, which might not mean much to people, but  
20 essentially it's a distance that could be up to a  
21 kilometer or more from the vessel.

22 But bowhead whales, possibly because of their  
23 traveling in an acoustically quiet environment or because  
24 they need to be able to sense where the ice is as they  
25 swim under the ice -- I don't know. Maybe Robert has more

1 information. But essentially we know that they are much  
2 more sensitive, at least in the Beaufort Sea, than other  
3 animals are. So that's why we have larger safety zones  
4 for bowhead whales than we have -- or larger zones of  
5 influence is the terminology for bowhead whales than we  
6 have for almost any other animal.

7 MR. JAMES TAZRUK: Last year I could see a  
8 ship out there, you know. I see the lights. They do  
9 seismic with their exploration, whatever. Waiting for the  
10 walrus to come, haul out, they usually haul out here by  
11 the village, and they didn't show up last year at all. We  
12 only got one walrus last year. It was all due to the  
13 seismic that went on out there.

14 MR. KEN HOLLINGSHEAD: As I mentioned, I  
15 think maybe before you got here, National Marine Fisheries  
16 Service doesn't have responsibility for walrus, so what we  
17 have done is we have heard that statement made in a couple  
18 of other villages, and it has been communicated from  
19 Minerals Management Service back to the Fish & Wildlife  
20 Service for their review.

21 One suggestion was made that maybe somebody could  
22 look at NASA ice photographs to see what happened, see  
23 what happened to the walrus, see if they could spot the  
24 walrus or something. So we are looking into that. Right  
25 now it's unsure whether it would be the seismic or whether

1 it would be sea conditions, ice conditions. We don't  
2 know. And so we are -- we passed it on to Fish & Wildlife  
3 Service who have the walrus experts.

4 MR. BILL TRACEY, SR.: Just a little  
5 history here. I have been here about 35 years. I've  
6 participated in one manner or another with several beluga  
7 harvests. As a matter of fact, every year since I have  
8 been here, along with the walrus hunting, the seal  
9 hunting, the fishing, the bird hunting, the egg gathering,  
10 the berry picking. There is no dates here. Hunting lasts  
11 all year long. We may do the physical beluga hunt between  
12 certain dates. It's when the belugas decide to be here.  
13 And they seem to have a pretty good calendar. They are  
14 here almost the same time every year.

15 But we are thinking about the hunt. We are doing  
16 things in preparation of the hunt all year long. And then  
17 when we know the beluga are close, we know enough that it  
18 doesn't take an oil spill to scare the things away, to  
19 change someone's patterns of migration. Noise will do it;  
20 a funny ocean, bad ice or something will do it. Just  
21 about any different weather patterns could change the  
22 course of how a beluga or another sea mammal or animal  
23 will move.

24 We know this. So we are very quiet prior to a beluga  
25 hunt. We don't use the boats in the ocean. We are

1 limited to any near ocean hunting. We are aware that the  
2 belugas have scout belugas that they send a couple up  
3 north along the coast to look at the ice -- I don't  
4 know -- to see if there is any disturbances up there.  
5 They go back. They communicate.

6 I mean, I've lived with traditional knowledge. I've  
7 learned some of that. I've worked with Robert and his  
8 people, so I have some scientific knowledge. I'm not a  
9 scientist and I'm not a traditional knowledge holder.  
10 That's why I used earlier that term local knowledge. I'm  
11 combining the two that I've learned over the years.

12 And I won't apologize for the seniors not being here  
13 tonight, but we are a very young village. I think our  
14 average age is like 18, 19 years old. We are a very young  
15 village. We have a few elders in town, and a couple of  
16 them are sick and ailing. I'd love to see them here  
17 tonight, but we have learned -- all of us in this room  
18 have learned from them over the years, and I think most  
19 people here are qualified enough to speak on behalf of the  
20 beluga hunters and the walrus hunters here in this  
21 community.

22 Now, I appreciate the fact that you talked about July  
23 15 is when ships could move in and activity will start up.  
24 That part of the beluga hunt for us may be over by July  
25 15th. So thank you very much, but it's not over for the

1 beluga. They are -- they are still -- when we are done  
2 hunting with them, we leave them alone. They play here.  
3 They are molting. They are using the shallow waters. So  
4 it's well beyond July 15 that we still see belugas.

5 And now Wainwright is waiting for their chance for  
6 the belugas to move up their way. As a matter of fact,  
7 some of the Wainwrighters come down here and hunt with us  
8 and they make their way back and get into the Wainwright  
9 hunt, and then there is the Barrow hunt. And we know that  
10 a big portion of the belugas that come by Point Lay make  
11 their way through Wainwright and then make their way to  
12 Barrow, and then they go north and they go under ice caps  
13 and they spend their summer diving.

14 We have had radio collars on several of these  
15 belugas, and they have tracked them to these northern  
16 positions. And eventually the collars fall off. And we  
17 need to come up with a better system that the collar will  
18 work for a longer period. And we actually see the return  
19 of the belugas, how they get back and where they come from  
20 or where they go.

21 This much we do know is that come July, early July,  
22 the belugas are here. We have our harvest, and then they  
23 move on up to Wainwright and Wainwright has theirs. But  
24 like I said, the hunt is all year long. Right now people  
25 are making their spears. They are sharpening the points.

1 They are buying gear oil. They are buying lower units for  
2 their boat. Anything that went wrong with their boat last  
3 year they are making good now.

4 So I don't know -- I think my point is that, yeah,  
5 some of us are done with a portion of the beluga hunt by  
6 July 15, but by no means is it over. It's an all-year  
7 effort. I think I'll leave that point there at that. I  
8 might come back and speak more.

9 MR. KEN HOLLINGSHEAD: Thank you, Bill.  
10 Tomorrow we will be in Wainwright and we will ask them as  
11 to their beluga harvest. It's an important point. You  
12 know, we want to ensure that these subsistence harvests  
13 continue. As I said, we have been familiar with what  
14 happens in the Beaufort Sea and we focused on that, and  
15 now we have to focus on the spring and the fall  
16 subsistence and, you know, summertime, too, subsistence  
17 harvest.

18 And that's why I was asking for information. And we  
19 will be getting it from Point Hope people, I think, on  
20 even fishing. But it's mostly for this environmental  
21 impact statement, as I mentioned, which would then allow  
22 us to review the entire system and not just look at one  
23 focused area or one focused knowledge base.

24 MR. JACOB P. STALKER, JR.: The project  
25 you said is happening this summer, is it starting this

1 summer, your seismic testing? Is it going to be this  
2 summer or when?

3 MR. KEN HOLLINGSHEAD: Correct. In  
4 2000 --

5 MR. JACOB P. STALKER, JR.: Okay. The --  
6 one other comment I have is your base of operations, is  
7 that going to be a ship or a scow or what?

8 MR. KEN HOLLINGSHEAD: First, a point of  
9 clarification. It's not mine. It's Shell oil. But they  
10 will be using a ship. They will be using the same vessel,  
11 same seismic vessel and support vessels that they used in  
12 2006 off the coast here.

13 MR. JACOB P. STALKER, JR.: And then you  
14 have got small units that leaves your base ship with their  
15 little boats to test, seismic test, or all the tests is  
16 done on the ship?

17 MR. KEN HOLLINGSHEAD: This is not seismic  
18 testing. The big ship tows the seismic air gun arrays.  
19 They are pretty close behind the vessel. Then behind that  
20 they tow the hydrophones so -- If you view the source,  
21 here is the noise source. The noise goes down into the  
22 bottom, comes back up and is picked up by the hydrophones.  
23 It's much more complex than that. But it's one unit, but  
24 they have support vessels to protect -- you know, the  
25 hydrophones behind it are several miles long, so they

1 don't want somebody coming out inadvertently in a small  
2 boat and crashing into it; so they have what they call a  
3 chase boat which protects that array. But they have only  
4 one big seismic boat.

5 MR. JACOB P. STALKER, JR.: And then you  
6 have wildlife observers with you 7/24 or 24/7?

7 MR. KEN HOLLINGSHEAD: Yeah. All vessels  
8 that Shell has will have observers on board. They will  
9 have --

10 MR. JACOB P. STALKER, JR.: Do they have  
11 authority to stop in emergencies or natural catastrophes  
12 that is happening? Will they have to terminate the  
13 testing?

14 MR. KEN HOLLINGSHEAD: Yes. The seismic  
15 vessel has a lead observer. And that observer, if he or  
16 his associates, assistants see a marine mammal inside a  
17 danger zone where injury could occur, they have an  
18 immediate shutdown authority. And they worked out the  
19 protocols so that it's instantaneous.

20 They also have observers on every support vessel,  
21 including, I think, Robert, they have 92 Inupiat that  
22 will be on these vessels this year. So every vessel has  
23 marine mammal observers. Even if they are not impacting  
24 the marine mammals, they are out there with their  
25 binoculars seeing what behavior reactions occur.

1                   MR. ROBERT SUYDAM: Ken, I'd like to make  
2 a couple of maybe a little more formal comments, and I'd  
3 like to kind of come over and stand by the map when I do  
4 it, and for a couple of different reasons.

5           My name, again, is Robert Suydam. I'm a wildlife  
6 biologist with the North Slope Borough Department of  
7 Wildlife Management. And I'm certainly not giving the  
8 borough's formal comments today that the mayor will give,  
9 or somebody from the mayor's office will give comments  
10 formally at the meeting in Barrow on Thursday, and  
11 certainly the North Slope Borough will provide official  
12 comments on the -- this action that you are proposing.

13           So my comments right now are more mine personally as  
14 a wildlife biologist and somebody who has had a fair  
15 amount of experience working here in Point Lay and in  
16 Barrow and other places along the Chukchi Sea.

17           My first request is that National Marine Fisheries  
18 and the MMS extend the comment period, that right now the  
19 comment period ends in the middle of May, and you couldn't  
20 have timed your actions to be a worse time for the people  
21 on the North Slope. They are -- right now many, in most  
22 of the villages along the Chukchi Sea coast from Point  
23 Hope all the way to Barrow, are whaling. So most of the  
24 community leaders are out on the ice hunting whales.

25           Also, the International Whaling Commission meeting

1 begins in early May, so the scientists that work for the  
2 North Slope Borough, the community leaders, the hunters  
3 are also preparing for the International Whaling  
4 Commission, and this year is a quota year at the IWC for  
5 bowhead whales. So both of those things take up a huge  
6 amount of time for the residents of the North Slope  
7 Borough. And to add yet another environmental impact  
8 statement on other environmental impact statements that  
9 are out there by the federal government, it's unfair to  
10 the people that live here. There isn't enough time to  
11 adequately review the document and provide appropriate  
12 comments to the government. So it makes sense to delay,  
13 to extend the comment period by 30 days.

14 My personal feeling is that no seismic activity  
15 should occur out here in the Chukchi Sea. And the main  
16 reason I say that is that there is very little information  
17 known about the distribution and abundance of marine  
18 mammals in the Chukchi Sea and this planning area that MMS  
19 is proposing for industrial activity.

20 We don't know what the marine mammals -- we don't  
21 know how the marine mammals react to seismic activity out  
22 here. We don't know if it's as the bowheads do as they  
23 move across the Beaufort. We don't know if it's as the  
24 bowheads in the MacKenzie River Delta that are more  
25 tolerant of seismic activity. We don't know that. We

1 don't know how belugas respond to seismic activity out  
2 here in the Chukchi Sea. We don't know how walrus or  
3 seals respond. You have heard today people's concerns  
4 about walrus and seismic activities or maybe even the  
5 boats scaring walrus away, and so people aren't getting  
6 walrus. You heard that at Point Hope.

7         There is concern that industrial activity right here  
8 in the Chukchi Sea are going to affect the animals that  
9 are important for the people and important for the  
10 communities. So until more information is known so that  
11 the hunts will be protected and the populations of marine  
12 mammals will be protected, there shouldn't be any seismic  
13 activity in the Chukchi Sea.

14         We know more about the Beaufort Sea. We know that  
15 bowheads are incredibly sensitive to sounds in the  
16 Beaufort Sea. Just the sounds from boats will deflect  
17 bowheads. The hunters have told the scientists that for  
18 years at the North Slope Borough. The hunters tell us  
19 that very little noise on the ice or any other time can  
20 cause the bowhead to swim away. And so if the hunters  
21 know that just a step or a cough will deflect the bowhead  
22 whale, then certainly a seismic boat that's making huge  
23 amounts of noise are going to deflect whales and make it  
24 harder for people to hunt.

25         From Barrow to Point Hope is, what, about 300 miles,

1 350 miles. The seismic boats that are out there operating  
2 in the Chukchi Sea, that the sound from their seismic guns  
3 can carry 400 or 500 miles, that the hydrophones can still  
4 pick those sounds up. So we know that the sound carries a  
5 great, great distance. And if the sound carries a great  
6 distance, then there can be effects from seismic boats a  
7 long ways away. The seismic boats could be operating out  
8 here and perhaps still affect the hunt that happens in  
9 Point Lay or Wainwright.

10 More information is known before the federal  
11 government makes decisions about seismic activity out  
12 here, especially if this environmental impact statement is  
13 going to allow multiple companies to go out there and  
14 shoot seismic at the same time.

15 In 2007 there is only one company that's proposed,  
16 but what about 2008? Might there be four companies or  
17 five companies? And if that occurs, then this whole area  
18 in the Chukchi Sea has a potential to be filled with  
19 seismic sounds, and those impacts could be huge.

20 What little I have been able to read through the  
21 environmental impact statement so far, I was disappointed  
22 in a decision that NMFS made that their Alternative 9 says  
23 they are not going to consider only permitting one seismic  
24 activity, limit the amount of activity to only one, that  
25 you have said that the environmental -- or the

1 environmental assessment assessed four seismic vessels,  
2 and you found that there was no significant impacts based  
3 on that analysis.

4 And you go on to say that you are not going to  
5 consider that alternative further in the environmental  
6 impact statement is how I read it. And it disturbed me  
7 because I'm not sure if the environmental impact statement  
8 here includes those stringent and very restrictive  
9 monitoring and mitigation procedures that were in the  
10 environmental assessment that said the companies had to  
11 monitor that 120 zone around the boats. That's really  
12 important that that zone needs to be monitored, not just  
13 for bowheads, but also for belugas and walrus and seals.

14 Even though NMFS doesn't have responsibility for  
15 walrus, it seems like if the federal government is going  
16 to take these actions, they shouldn't just limit it to  
17 bowheads and belugas and seals, but they should formally  
18 evaluate potential impacts to walrus and other marine  
19 mammals, as well.

20 Willard asked a little bit ago about the activities  
21 going through here in June, going through the Chukchi Sea  
22 in June. One of the most important considerations in any  
23 of these decisions that the government is going to make is  
24 what are the cumulative impacts. We know that one seismic  
25 boat can have a great deal of impact on marine mammals,

1 but if there are ice breakers coming through here in June  
2 and after that there is more ice breakers coming through  
3 and then after that there is a seismic boat coming  
4 through, what's going to be the impact total? There is  
5 also barges coming through. There is scientific research  
6 boats coming through. All of these things add up to  
7 having potential to impact marine mammals in a cumulative  
8 sense. That needs to be considered.

9 Also, we all know that climate change is affecting  
10 the environment up here. The ice is changing. The  
11 currents are changing. The water is changing. That needs  
12 to be considered, as well. Probably the marine mammals  
13 are changing up here, their distribution, perhaps their  
14 abundance. Maybe new species are coming in. Maybe new  
15 fish are coming in or new food for all the marine mammals  
16 that are up here. So climate change needs to be  
17 considered in here and the effects from climate change.  
18 If climate change is affecting marine mammals up here, how  
19 is NMFS, how is MMS going to sort out what the impacts,  
20 the further impacts might be from seismic?

21 So I guess, in conclusion, that there is a great deal  
22 lack of information in the Chukchi Sea. We don't know a  
23 lot about that. We don't know very important information.  
24 We don't know what the distribution of the marine mammals  
25 is. We don't know how many are out there in the

1 summertime. We don't know what the impacts of seismic are  
2 going to be, and we need that information before we can  
3 make the right decisions, the reasonable decisions.

4         So I'd like to thank NMFS and thank MMS for coming to  
5 Point Lay and the other villages on the North Slope and  
6 listening to the concerns. But I really hope that you do  
7 listen to the concerns. So many times in the past the  
8 federal government has come up and had public hearings.  
9 They write down all the information, but often decisions  
10 are made independent of all those opinions. They make  
11 decisions not really taking into account the people's  
12 concerns and effects. And I hope that this case it's a  
13 different decision. Thanks.

14                 MR. KEN HOLLINGSHEAD: Thank you, Robert.

15                 MR. NATHAN HENRY: Has anybody ever done a  
16 -- like an active test for the -- you know, when the --  
17 you said you got a ship that breaks ice, the ice breaker,  
18 or what do you call it? Is anybody going to -- like  
19 after, you know, you see what the results after you break  
20 the ice, does a big 500-mile ice rink just start floating  
21 away, you know, when you break the ice and just kch  
22 (phonetic)? Does anybody know what happens after you are  
23 done breaking the ice? Because, you know, the ice is all  
24 solid right there until you guys -- until you break the  
25 ice, and then is it just going to stay there or is it

1 going to float away and --

2 MR. KEN HOLLINGSHEAD: We are going to  
3 have to look at that. This was not mentioned to us in  
4 their application. We published their application in the  
5 Federal Register. They then told us at an open water  
6 public meeting in Anchorage two weeks ago about this ice  
7 breaking, so it's still too preliminary for us to look at  
8 it. What we were focusing on is what we call ice  
9 management, which means pushing ice around, which makes  
10 less noise, and ice breaking, which means riding up on the  
11 bow and breaking the ice, which can make more noise. So  
12 we are looking at it, and I would not want to make any  
13 preliminary judgments. We just don't have the knowledge  
14 yet of that.

15 We have some knowledge in other areas, like in  
16 eastern Canada, but we don't have knowledge of that up  
17 here at this time. And we still have to look at that, go  
18 back into the literature sources, et cetera, to look at  
19 that.

20 MR. JOSHUA BACON: Just a follow-up on  
21 that comment. Is this ice-breaker activity something  
22 that's going to be covered in this EIS? You mentioned  
23 that you have to go back and look at it. Is that material  
24 that's going to be put into this EIS?

25 MR. KEN HOLLINGSHEAD: It will be

1 mentioned. It could possibly be mentioned in cumulative  
2 impacts, but it's not a subject. This is just on seismic,  
3 so discussions of things like ice breaking, et cetera, are  
4 the subject of the environmental impact statement done by  
5 Minerals Management Service on the actual lease sale  
6 that's being done. So for example, if there is a -- if --  
7 if there is a lease sale that they are operating on, then  
8 that lease sale has to have a discussion of ice-breaking  
9 activities.

10 MR. JOSHUA BACON: So these ice-breaking  
11 activities that are going to occur really aren't covered  
12 in any EIS?

13 MR. KEN HOLLINGSHEAD: I can't state -- I  
14 don't know that. I'm not familiar with what was in  
15 previous environmental impact statements. The discussion  
16 here is only on this environmental impact statement. We  
17 only learned about that ice breaking, but ice breaking is  
18 not an uncommon activity in Arctic waters, so it should --  
19 it should be addressed in various NEPA documents for other  
20 agencies unless, like, the Coast Guard decided that they  
21 don't want to write an EIS. But that's outside the scope  
22 of what we are here for tonight.

23 MS. TRINA LISBOURNE: Trina Lisbourne.  
24 Our main harvest is on belugas. And I've lived here for  
25 nine years this year, and I love going out beluga hunting.

1 And I've experienced belugas are affected by sound,  
2 because when we harvest our belugas we pound on the boat  
3 to not let them pass us. And if they hear this sound,  
4 they might not want to migrate. And if it doesn't -- if  
5 they don't migrate, it's going to affect our culture.

6 And this beluga harvest that we do, it gathers our  
7 people together and it makes us happy. That's my --  
8 that's what I'm wondering about because they are affected  
9 by sounds even if we are, like, a mile away. When we  
10 pound on the boats, they are affected by that sound. And  
11 this sound is -- will do, what, 400 miles, is that what I  
12 hear? And if they don't want to migrate, it's going to --  
13 they are going to be concerned, the ones that are up  
14 front, like Bill said, the scouts. There are scouts that  
15 go, and they do check up and they do go back.

16 And we -- all of the belugas gather all of us  
17 together, and we -- we go across, we get happy. That's  
18 our culture. It brings us abundance and we -- we have  
19 joy. And if we don't get belugas because of this seismic  
20 project, then it's going to break our culture. Thank you.

21 MR. KEN HOLLINGSHEAD: Thank you, Trina.

22 MR. WILLARD NEAKOK: You know, I -- ever  
23 since I have been here, I've hunted each and every year.  
24 Doesn't matter whether winter or summer. Summertime I  
25 love to go out in the ocean. You know, I love to see the

1 animals. I like to watch them, you know, in their natural  
2 habitat. And, you know, further on down the line, like  
3 Robert said, that, you know, there might be different  
4 entities, different oil companies coming into our area and  
5 doing seismic work. And, you know, I sure hate to go out  
6 there and see nothing. You know, I love to watch the  
7 belugas play. I love to watch the whales, you know,  
8 breach. I love to watch the seals, you know, swim on the  
9 ice, you know, when they are on the ice. You know, I like  
10 to watch them bask in the sun.

11 And, you know, with all this seismic activity -- you  
12 know, I love to pass my knowledge on to my children. And  
13 if they are going to be doing this each and every year and  
14 more and more oil companies come and do seismic work, you  
15 know, it's going to scare these animals away to where my  
16 children or my children's children won't be able to enjoy  
17 the things that I've witnessed ever since I have been  
18 here. I have been here for almost 37 years. 34 years.  
19 And, you know, I've enjoyed every year, you know, enjoying  
20 the animals, whether on land or on the ocean.

21 And last year, you know, it was -- when they were  
22 doing the seismic activity, you know, I didn't see as much  
23 as I did in 2005, 2004. You know, I didn't see that many  
24 animals out there, you know. And I go out there quite a  
25 bit; every weekend, almost every weekend, weather



1 more. You have aircraft on your boat, too?

2 MR. KEN HOLLINGSHEAD: Excuse me? Do I  
3 have what?

4 MR. JACOB P. STALKER, JR.: You have any  
5 type of aircraft on that boat going to be running around  
6 out there in front, helicopter or something you guys going  
7 to be having on your research boat?

8 MR. KEN HOLLINGSHEAD: There may be a  
9 helicopter pad on the vessel. I don't know which ones  
10 have, but one vessel has a helicopter pad, but that would  
11 be the amount of what we have. They are also looking at  
12 including UAVs, unmanned aerial vehicles, to do monitoring  
13 of bowheads and belugas, which is a new technology coming  
14 to the North Slope. We are still working on that. The  
15 industry is still working on trying to get that  
16 technology. It requires permits.

17 They have gotten the National Oceanic and Atmospheric  
18 Administration, my parent agency, as a sponsor for having  
19 that up here but, of course, as we know, there are some  
20 problems with having unmanned aircraft in airspace that  
21 also has manned aircraft, the various companies that fly  
22 and the private companies that are up here already flying.  
23 So it's not going to happen immediately, but they are  
24 looking at having unmanned aerial vehicles which would be  
25 launched from a seismic vessel.

1                   MR. JACOB P. STALKER, JR.: The reason I  
2 ask about the type of aircraft on the boat that is going  
3 to be out there in the summer is even the aircraft that  
4 are flying overhead, airplanes, even, that are flying  
5 offshore, the animals I have talked about migrating, they  
6 will shy away from their natural trail, you know, where  
7 they travel. They will avoid any type of sound, including  
8 aircraft sounds. And if there is going to be, I'd like to  
9 recommend that you use minimum, you know, emergencies  
10 only, stuff like that, that any kind of loud noise from  
11 anywhere is -- it's a major concern for the Inupiats on  
12 this side of the Arctic Slope.

13                   MR. KEN HOLLINGSHEAD: Okay. Thank you  
14 very much. We share your concern.

15                   MR. JOSHUA BACON: Is the UAV stuff -- I'm  
16 sorry I haven't had a chance to read the EIS. Is that in  
17 any way included in the EIS, the UAV technology and how  
18 that may be incorporated?

19                   MR. KEN HOLLINGSHEAD: In the  
20 environmental impact statement, one of the mitigation  
21 measures is to use aircraft. We do not discuss whether  
22 they are manned aircraft or unmanned aircraft. If you  
23 have a manned aircraft, that aircraft has to come from a  
24 landing place on land, which limits its time to make  
25 marine mammal observations. An unmanned aerial vehicle

1 has greater time, I understand up to 20 hours, which means  
2 it's on site and available.

3 So if the technology works out, both the permission  
4 area -- you know, the -- getting the permission to fly in  
5 U.S. air space and the technical aspects of being able to  
6 identify a whale from what is essentially a TV camera, it  
7 certainly would show that it has better -- has good  
8 technology for an offshore environment which is inherently  
9 dangerous for manned aircraft.

10 So it does -- there is a discussion about aircraft as  
11 a mitigation tool, but it does not get into the technical  
12 detail of vehicle -- of whether it's a manned vehicle and  
13 the aspects of it. It just says that they would have to  
14 use an aerial vehicle. That information is being prepared  
15 in a comprehensive report that's being prepared by the  
16 industry in coordination with National Marine Fisheries  
17 Service and the North Slope Borough scientists.

18 MR. JOSHUA BACON: I do have a concern  
19 that the aircraft is in the EIS to be used as a -- as  
20 mitigation to survey when industry seems very unwilling to  
21 use manned aircraft because they say it's a risk to human  
22 life and injury, and that I have been on -- been involved  
23 with some of the tests for the UAV systems and they fail  
24 miserably. So that's a concern that's in there as a  
25 possible mitigation when I don't think it is a possible

1 mitigation at this point that would be effective.

2 One other question about bearded seals. Bearded  
3 seals are a very important resource to residents of the  
4 North Slope for oil, meat, and making of skin boats that  
5 are used for bowhead whaling. I'm concerned that there is  
6 very little known, as Robert said, about seal populations,  
7 and in particular bearded seal populations in the Chukchi  
8 Sea, because it's such an important resource. And also  
9 I'm concerned about the bearded seal and the bearded seal  
10 hunt because seismic activity is going to be taking place  
11 during the hunting of seals from all the villages, which  
12 takes place in mid-summer when all the seismic activity  
13 would be occurring.

14 And I said before that I hadn't got a chance to read  
15 the EIS. What information in there -- is there in there  
16 about -- about bearded seals and how impacts will be  
17 documented or what information there is about impacts on  
18 bearded seals and specifically maybe bearded seal pups of  
19 the year that would be affected when seismic comes up in  
20 the summer?

21 MR. KEN HOLLINGSHEAD: The environmental  
22 impact statement discusses bearded seals in relation to  
23 all the other seals, and that is the knowledge that's  
24 known through testing or through other sources of  
25 information as to where injury or mortality -- injury

1       could occur due to eardrum injury. It also talks about  
2       what is known about behavior. I'm not sure we have  
3       specific information on testing on bearded seals, but we  
4       would have it on surrogate species that are more adaptable  
5       to a laboratory.

6             You would have to go into the document yourself to  
7       find the specific information, but the information -- we  
8       need to have checked whether the information on bearded  
9       seal hunting, subsistence hunting, is correct, and that's  
10      the information that we are looking for. Also the  
11      locations and times for that kind of hunting, whether it's  
12      out in the open ocean or whether it's up on the Colville  
13      River delta, for example, or some other river area. That  
14      kind of information is particularly important for this.

15            There is an authorization to harass marine mammals.  
16      That's what is being requested. So it's not that you  
17      cannot have an impact, but we have to make sure that that  
18      impact is negligible and not having an unmitigable adverse  
19      impact on subsistence uses of the bearded seal or the  
20      other seal species.

21            So I can't really say -- you know, we put our best  
22      information in this document, and we need to get people to  
23      review it to look at it and to see if there is additional  
24      information that's available, again, specifically looking  
25      at bearded seal subsistence hunts.

1 Did that answer your question, Josh?

2 MR. JOSHUA BACON: Yes.

3 MR. KEN HOLLINGSHEAD: Okay. Thanks.

4 MR. BILL TRACEY, SR.: It looks like we  
5 are gearing down here. I want to thank you for being here  
6 and listening to not only Point Lay's concerns and  
7 comments and their wisdom, but Point Hope's, Wainwright's,  
8 Barrow's. You'll probably hear from people from Aktusuk,  
9 Nuiqsut and Kaktovik and Canada. We even have Canada  
10 represented here. So thank you very much for being here.

11 And where that's really coming from is I know that  
12 these people here -- and I've lived amongst folks in all  
13 the other communities in one fashion or another, and they  
14 do everything they can to have a successful hunt this year  
15 to put food on the table for their family, and for the  
16 next year and the year after that. They don't overhunt.  
17 They don't waste. They -- they are slick. They don't  
18 make noise to scare the prey. They are -- you know, they  
19 are -- they just know how -- they have perfected the art  
20 of hunting up here to make a successful hunt and bring  
21 something home.

22 But this seismic survey is something beyond their  
23 control, except for you being here. You are going to be  
24 their voice in what's put in that EIS. And that's why I  
25 want to thank you for being here.

1 MR. KEN HOLLINGSHEAD: Thank you very  
2 much, Bill. Additional comments? Questions? Concerns?

3 MR. NATHAN HENRY: How long has those  
4 ships been up there, for about -- and since they have been  
5 out there, has anything happened to them that hasn't been  
6 reported or, you know, like oil spill or leak on the ship;  
7 something under the ocean or find a city under the ocean  
8 that's been buried 100,000,000 years ago?

9 MR. KEN HOLLINGSHEAD: The seismic vessels  
10 that entered in 2006 entered the Chukchi Sea from, if I  
11 recall correctly, in late July. They had various -- Shell  
12 and Conoco were in the Chukchi in the summertime. I think  
13 Shell did go over into the Beaufort to shoot some seismic  
14 or, no, they didn't get --

15 MR. ROBERT SUYDAM: Just the site specific  
16 stuff just for a day.

17 MR. KEN HOLLINGSHEAD: Yeah, and Shell  
18 terminated operations around September 25th. Conoco  
19 suspended theirs sometime thereafter. GX Technology was  
20 working in the Canadian Beaufort and then came back out in  
21 the fall and shot seismic until November 11th, I think it  
22 was. So we had -- I think it appeared that we did not  
23 have any overlapping seismic activity. We had one vessel,  
24 roughly, operating during the summertime. They were all  
25 gone by November -- November 11th.

1           We would expect that there is going to be less this  
2 year because only Shell is requesting a permit from MMS to  
3 conduct seismic in the Chukchi Sea. Depending on weather  
4 conditions, the ice conditions in the Beaufort will  
5 probably dictate how long they remain in the Chukchi Sea  
6 and whether they return back again. There is some  
7 confusion as to how long their survey will last.

8           As far as oil spills, there would not be an oil spill  
9 because they are not doing any drilling, so unless there  
10 was some -- something catastrophic to the vessel itself  
11 where they have had an at-sea accident, there would not be  
12 oil spills. There is also federal regulations against  
13 discharge of materials overboard from vessels. It is no  
14 longer like when I was out to sea where you threw your  
15 garbage over the side because the ocean was big and could  
16 consume it. There is a lot of strict regulations now. So  
17 I don't see that.

18           I think the only problem could occur is if a  
19 hydrophone array was penetrated, and it has a  
20 biodegradable chemical in it, so it might be an oily type  
21 of substance -- actually, I think it's a paraffin gel. So  
22 that would be the only kind of pollutant, and it's  
23 biodegradable. It would not last very long. So I would  
24 not think that would be of concern.

25           Thank you.

1           Would people want to consider some additional  
2           comments that we should keep the record open?  If you are  
3           still trying to think of something to ask, we can keep the  
4           record --

5                           MR. BILL TRACEY, SR.:  Take a five-minute?

6                           MR. KEN HOLLINGSHEAD:  We can go off the  
7           record for five minutes, if you wish, sure.  We will have  
8           a five-minute break, give the court reporter a little bit  
9           of a break.  I'll let you know, and we can decide whether  
10          to continue or to close the record out for the evening.  
11          Thank you.

12                           (Off the record.)

13                           MR. JACOB P. STALKER, JR.:  This is  
14          through our traditional knowledge from village.  I'd like  
15          to convey information for you.  Most of our major  
16          community activities involve annual harvesting in  
17          springtime, summertime.  We talk to elders first, and the  
18          last ones that we talk to after everything is done are the  
19          elders.  So I would like to emphasize that a lot of our  
20          community of Point Lay and the other villages on the  
21          coast, they adhere to elders' comments or their oral  
22          knowledge, so normally we make it a -- like a habit or  
23          informational for just our younger people is always go to  
24          the elders before or after any major thing happens with  
25          the community.

1                   MR. KEN HOLLINGSHEAD: Thank you very  
2 much. For the people who have just come in, what this is  
3 is a public hearing on an activity called seismic surveys  
4 in the Chukchi and Beaufort Seas. And we are looking for  
5 information to put in our environmental impact statement,  
6 and we are especially looking for traditional knowledge  
7 information from our elders. I'm with the National Marine  
8 Fisheries Service, and I'm associated with the Minerals  
9 Management Service from Anchorage.

10                 So with that, if you would like to -- Charlie, would  
11 you like to --

12                   MR. CHARLIE TUCKFIELD: I can't hear that  
13 far. What did he say?

14                   MR. BILL TRACEY, SR.: They are here to  
15 listen to your concerns about the seismic activities  
16 offshore of Point Lay.

17                   MR. CHARLIE TUCKFIELD: Are you looking  
18 for activities out of Point Lay? What I'm concerned about  
19 is we do get whales many years ago, but we got two  
20 villages ahead of us, and I can't say yes to anything from  
21 on this side. We depend on them getting whale. They  
22 furnish us muktuk, you know, Point Hope. Hardly give  
23 us -- but Wainwright and Barrow support us with muktuk.  
24 And that --

25                 I worked on a ship before. That's lots of noise on

1 those ships just traveling around. Make a lot of noise if  
2 they drill out there. We got a lot of sea mammals come  
3 through here, walrus, beluga, whale, and that's -- I don't  
4 know if that's a good idea drilling out there out ahead of  
5 those big whale hunters up there. I'm kind of against  
6 that, too.

7 And I'm Charlie Tuckfield. I'm an old man. Just  
8 only 80 years old. Warren would be here, but he's getting  
9 old, too. He would have something to say. I know he  
10 would be against that drilling out there, too.

11 MR. KEN HOLLINGSHEAD: Do you remember  
12 drilling -- excuse me. Do you remember seismic --

13 MR. CHARLIE TUCKFIELD: I can't hear you.

14 MR. KEN HOLLINGSHEAD: Do you remember  
15 seismic activities about 20 years ago here?

16 MR. CHARLIE TUCKFIELD: What's that?

17 MR. KEN HOLLINGSHEAD: Do you remember the  
18 big boats being here about 20 years ago?

19 MR. CHARLIE TUCKFIELD: Oh, we used to  
20 have coastal surveys coming through here many years ago.  
21 They hydro over the ocean, you know.

22 MR. KEN HOLLINGSHEAD: What about oil and  
23 gas?

24 MR. CHARLIE TUCKFIELD: No. Looking for  
25 that shallow place up north.

1                   MR. KEN HOLLINGSHEAD: Were there impacts  
2 on your subsistence to whales, walrus?

3                   MR. CHARLIE TUCKFIELD: What did he say?

4                   MR. BILL TRACEY, SR: Twenty years ago the  
5 oil companies were out in the ocean. Were you around? Do  
6 you remember that happening?

7                   MR. CHARLIE TUCKFIELD: Who?

8                   MR. BILL TRACEY, SR.: Oil companies.

9                   MR. CHARLIE TUCKFIELD: No, I never seen  
10 oil companies go out from here many years ago.

11                   MR. KEN HOLLINGSHEAD: Okay.

12                   MR. CHARLIE TUCKFIELD: I work for oil  
13 company in Prudhoe Bay, but that's the only place I work  
14 for oil company.

15                   MR. KEN HOLLINGSHEAD: Okay. Thank you  
16 very much.

17                   MR. CHARLIE TUCKFIELD: That's inland. I  
18 work inland, not in the ocean.

19                   MR. KEN HOLLINGSHEAD: Okay. Thank you.

20                   MR. CHARLIE TUCKFIELD: Yeah, we depend on  
21 our sea mammals, you know. Just like at Point Hope would  
22 depend on beluga, and the whales come through here, hit  
23 Wainwright and then Barrow and Kaktovik. And if we say  
24 yes and say go ahead and drill, maybe they chop my head  
25 off.

1 MR. KEN HOLLINGSHEAD: Thank you.

2 MR. CHARLIE TUCKFIELD: She's going to  
3 speak in Eskimo. She can't speak English very good.

4 MR. KEN HOLLINGSHEAD: Okay. Thank you.

5 (Following is Nora Itta's testimony translated  
6 by Rosabelle Rexford in Barrow on April 26, 2007.)

7 MS. NORA ITTA: My Name is Nora Itta.  
8 And I have been living in Point Lay for some time. They  
9 have asked me to say something. I cannot hesitate to say  
10 no, so I will do some little inputting.

11 I am one of the older people here in town. I had  
12 joined them when I become of age, and I will try my best  
13 to say something.

14 As I was growing up, I had hunted most of -- most of  
15 all the animals that come across Point Lay -- she didn't  
16 say Point Lay, but she had hunted with other people, like  
17 belugas and the seals and whatever come across over there.  
18 I did my best also to hunt with other people.

19 We all like to eat them because we are all Inupiat  
20 people. As they hunted, I hunt along with them because  
21 she doesn't want -- she doesn't want any of the oil  
22 companies to do any disturbing in their area in Point Lay.

23 In wintertime we also do some hunting. All of the  
24 animals that come across here, we like to hunt and eat  
25 them because they are nourishing to our bodies.

1           Okay. As for belugas, they are like -- like when you  
2           are -- like when you are eating your favorite food, beluga  
3           is like that. It's just like medicine to our bodies when  
4           we eat it, when we eat them. I guess last summer they  
5           didn't get enough belugas. Most of the children had  
6           gotten sick. I don't know what from. And I don't know  
7           what she meant. Because very -- not very few, but some  
8           went through there, belugas. They look -- they hunt for  
9           them in first part -- the first week of July. We all like  
10          to eat them.

11          I would be more happy, just like anybody else, if  
12          they -- if they do not do any disturbing in our area,  
13          especially in the ocean area where they like to drill.  
14          They always come -- the ones that always come every year,  
15          like the belugas, the seals, the bearded seals, and the  
16          ducks, all of the Inupiat people like to eat them. We all  
17          like to hunt for them. Just like White people or  
18          Caucasians, they like to eat what they eat, and for us we  
19          don't want -- we don't want our animals to be disturbed.

20          And when they start to come around the oil companies,  
21          it's very hard for us to catch them. When they hear  
22          something -- when they hear something, like, disturbing,  
23          they don't show up anymore, like don't go there, you know,  
24          as saying that way.

25          I'm pretty sure there is going to be some translator

1 here. I'd be most happy if they do that, if they do some  
2 translating. If I had gone to more -- if I had -- if I  
3 had gone to a lot of education, I would be most happy to  
4 do some translating because, as Inupiat, I have been  
5 trained that way. And I'm not very educated.

6 So at this time, again, I will be most happy if they  
7 do not do anymore disturbing. The ones we like to eat  
8 most, that most of us -- most all of us over there at  
9 Point Lay would not want them to be disturbed. Like most  
10 of us, we all know that some animals are sometimes afraid.  
11 If these are -- if these start to come up, we all know  
12 that if the animals are disturbed, we know that they won't  
13 come around anymore.

14 I think I'm talking too much. I'd be most happy if  
15 they translate what I had said. As I'm looking at them,  
16 I'm just speaking in Inupiat. Thank you.

17 (End of translation.)

18 MR. KEN HOLLINGSHEAD: Thank you very  
19 much. Are there any additional comments from people?  
20 With that -- I think that was very moving, for me, anyway.  
21 If there are no additional comments, I would like to thank  
22 everybody for their participation tonight, especially our  
23 elders, and also to remind people that the comment period,  
24 unless extended, remains open until May 14th. So we  
25 accept additional comments from anybody who wishes to

1 submit comments. And thank you all very much for being  
2 here tonight. With that, the record will be closed.  
3 Thank you.

4 MR. BILL TRACEY, SR.: Thank you.

5 MR. ALBERT BARROS: Also thank you to all  
6 of those who brought children. They were very well  
7 behaved tonight. We appreciate that very much. Thank  
8 you.

9 (Proceedings adjourned at 10:00 p.m.)

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REPORTER'S CERTIFICATE

I, MARY A. VAVRIK, RMR, Notary Public in and for  
the State of Alaska do hereby certify:

That the foregoing proceedings were taken before  
me at the time and place herein set forth; that the  
proceedings were reported stenographically by me and later  
transcribed under my direction by computer transcription;  
that the foregoing is a true record of the proceedings  
taken at that time; and that I am not a party to nor have  
I any interest in the outcome of the action herein  
contained.

IN WITNESS WHEREOF, I have hereunto subscribed  
my hand and affixed my seal this \_\_\_\_\_ day of  
\_\_\_\_\_ 2007.

\_\_\_\_\_  
MARY A. VAVRIK,  
Registered Merit Reporter  
Notary Public for Alaska

My Commission Expires: November 5, 2008